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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,352	12/08/2000	Kirk P. Bumgarner	SP00-038	2858

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EXAMINER
HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/733,352	BUMGARNER ET AL.	
	Examiner	Art Unit	
	John Hoffmann	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 May 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-58* is/are pending in the application.

4a) Of the above claim(s) *38-58* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of group I in the paper of 6 May 2003is acknowledged. The traversal is on the ground(s) that the inventions are unextricably intertwined and it would be necessary to review the same pertinent fields. This is not found persuasive because there was no evidence or rationale given to support the position. Furthermore, none of the reasons is sufficient to overcome the prima facie showing of the Restriction Requirement.

The requirement is still deemed proper and is therefore made FINAL.

Claims 38-58 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the paper of 6 May 2003.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 , 29, 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 refers to "the light at the other end of the fiber" there is no antecedent basis for this light. It is unclear if this requires there be light at the other end, if it must be light from the light source, or what. Claim 30: there is no antecedent basis for "said launch light at the other end of the fiber". The specification does not appear to discuss this aspect of the invention. It is Examiner's opinion that no routine tests deal with light "at" the end - rather it is light that is reflected from the end, or which passes through the end. At first Examiner thought the claims are directed to light which passes through the end, but there is no basis for interpreting the claim so narrowly, especially when claim 29 specifically mentions reflectometry as one of the optical tests. Also, given that a spool could be approximately the same size as a tester, one could also argue that everything is "at" the fiber end. One would assume the complete "evaluation" would not be right "at" the end.

There is no antecedent basis for "the tension in the fiber in the draw process". The preamble of claim 1 indicates that the screening occurs during the draw process - thus the screening and the drawing appear to be two different things - thus there would be a screening tension and a drawing tension. Thus one would expect that there is a draw tension which would probably be much less than the screening tension imparted by the capstans of differing speeds. However from the disclosure, there doesn't seem to be much discussion of this. However there are many other things which are not clearly described in the specification - such as the load cell.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuneishi 5922098.

See figure 1A, and the last line of col. 2. Any spool (including the Tsuneishi spool) can inherently be shipped to anyone.

Claims 21-22: see the first paragraph of col. 4. Given the size of the fiber and the one kilogram weight, it is easy to calculate that the stress is much greater than 95 psi.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 18-19, 23, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneishi 5922098

Tsuneishi discloses the invention substantially as claimed, except for the speed of greater than 20 m/s. Looking to figure 1a of Tsuneishi: 1 is the preform being drawn into a fiber, 25 imparts the desired tensile strength to test the strength of the fiber, and 4

is the spool onto which the fiber is wound. Col. 4, line 5 discloses a lesser drawing speed. It would have been obvious to draw the fiber as fast as possible so as to make as much fiber as quickly as possible.

Applicant's specification (page 2) seems to discuss that for "some" current methods, fibers are not tested because testing breaks the fibers on occasion. This appears to be simply a choice of the artisan between two trade-offs: slowing down a process because a fiber breaks vs producing an untested fiber which may have some weak spots that cause failure in the field. There does not appear any indication that one of ordinary skill would not be able to proof test a fiber at a speed above 20 m/s. It is noted that any response which indicates that one of ordinary skill could not increase the speed of the Tsuneishi process, such may be used as evidence that the invention is not enabled. From the MPEP:

2172.01 [R-1] Unclaimed Essential Matter

A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. In re Mayhew, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention.

Claims 2-3: See col. 4, lines 7 and 16. This translates to a tensile stress well in excess of 95 psi.

Claim 4: one can ship spool 4 if one so chooses.

Claim 5: it would have been obvious to sell the fiber on the spool, so as to make money to pay one's bills. IT would have been further obvious to transfer it to the

customer, because if the customer doesn't receive it, one will develop a bad reputation and won't be able to make money.

Claim 6: it is clear that one would have access to both ends of the fiber. For example, by unreeling the fiber from the spool.

Claim 23: it would have been obvious to sell the Tsuneishi spool so as to make money. It would have been further obvious to ship it to the customer, because it will make the customer happy that she doesn't have to pick it up herself.

Claims 18-19 and 36-37: it would have been obvious to put as much or as little fiber on a spool as desired - depending upon how much one needed.

Claims 7-12, 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneishi as applied to claims 1-6, and 20-23 above, and further in view of Bice 5787216.

Tsuneishi does not disclose the ends being accessed or the optical testing. Bice, starting at col. 1, line 26, discloses that one of the most important tests is OTDR which requires that the fiber be such that light travels from one end of the fiber (and back?) This requires that the light be accessible to both ends of the fiber; because it must travel to the second end if it is to reflect back from that end. The other end can be accessed by light. It would have been obvious to perform OTDR on the Tsuneishi fiber, because it is one of the "most important" tests to make sure the fiber is not damaged.

Claims 9-10: Bice refers to the OTDR as being "one of the most important test being performed after being wound on a spool for storage. It would have been obvious to perform the OTDR and other "most important test or tests", because they are important to one of ordinary skill, and so that the customer and artisan can know as much as possible about the fiber.

Claim 12 refers to "the light at that other end of the light source". It is noted that there is no antecedent basis for any light that is "at" the other end. It is deemed that The Tsuneishi-Bice combination reads on that limitation, because the light was "at" the other end when it was reflected.

Claims 24-30 are met for substantially the above same reasons.

Claims 1 and 13-17, 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKay 4601208.

McKay discloses the invention as claimed, except for the speed. It would have been obvious to draw the fiber as quickly as possible to make as much fiber as possible.

Claim 13: given col. 2, lines 38 and 55-56 of Mc Kay, since the two pulleys have the same rotational velocity and different diameters- they inherently have different circumferential velocities. 12 is the screen capstan, and 10 is the "another capstan".

Claim 14: there is no antecedent basis for "the tension"; it is interpreted as "a tension" . The tension is monitored via 47 and 48. Namely, when the tension drops to near zero, an alarm is sound and the speed is reduced (paragraph spanning cols. 3-4).

Claim 15: there is no indication what applicant's load cell is or is not. It is not shown in the drawings. It is noted that from Maltby 4184555 (col 1 lines 17-25); it can be an indicator that indicates changes caused by compression load. Examiner cannot see any reason why the McKay detector of tension change should not be considered to be a load cell. Alternatively, the photodetector 48 itself is the load cell - it measures a light load.

Claim 16 is clearly met.

Claim 17: McKay does not disclose a computer. But col. 4, line6 refers to automatic winding equipment. It would have been obvious to use a computer to control the automatic winding equipment, because computers are inexpensive, accurate, fast, can monitor many things at once and can store all the data of the process.

Claims 31-35 are obvious for substantially the same reasons given above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kurt, Bu-Abbud, Rochester, Maltby, DiMarcello, Glaesemann,Knowles, Mochizuki, Roos, Tsurusaki, and Sasagawa are cited as being similar to Applicant's invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-372-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

8-4-03

John Hoffmann
Primary Examiner
Art Unit 1731

jmh
August 4, 2003